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(54) Title: NOVEL ULTRASOUND CONTRAST AGENTS			
(57) Abstract <p>New and structurally distinct ultrasound contrast agents that comprise micron size microbubbles encapsulating a gas within a shell made from a blend of bipolar compounds having inter-molecular hydrophobic regions of mixed carbon chain length. The compounds have the following structure: R₁-X-Z, R₂-X-Z, and R₃-X-Z', where R₁, R₂ and R₃ are hydrophobic groups selected from the group consisting of straight-chained alkyls, alkylethers, alkylthioethers, alkylthioethers, polyfluoroalkyls, and polyfluoroalkylethers having a carbon chain length greater than or equal to 16 and less than or equal to 32 and where R₁ is greater than R₂ and R₁ is greater than or equal to R₃; R₃ has one or more such hydrophobic groups having the same or different lengths; X is a linker connecting the hydrophobic group to the polar head group; Z is a polar head group selected from the group consisting of CO₂-M*, SO₃-M*, SO₄-M*, PO₃-M*, PO₄-M*, N(R)₄*, a pyridinium or substituted pyridinium group, and a zwitterionic group; R is selected from the group consisting of -H, -CH₃, alkyl, cycloalkyl, substituted cycloalkyls containing one or more heteroatoms, and benzyl and can be the same or different; and Z' is a nonionic group.</p>			